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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,714	01/05/2001	David T. Berquist	55350US6B014	5169
32692	7590	06/21/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			BANGACHON, WILLIAM L	
PO BOX 33427			ART UNIT	
ST. PAUL, MN 55133-3427			PAPER NUMBER	
			2612	

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/755,714	Applicant(s) BERQUIST ET AL.	
	Examiner William L. Bangachon	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-16,18,19,22-27 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,4-16,18,19,22-27 and 31-33 is/are allowed.
- 6) ☒ Claim(s) 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/16/06</u> . | 6) <input checked="" type="checkbox"/> Other: <u>Examiner's comments</u> . |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 9/29/2005, with respect to claims 1, 4-16, 18, 19, 22, 27, and 31-33 have been fully considered and are persuasive.
2. Applicant's arguments with respect to claim 23 have been fully considered but they are not persuasive. The rejection of claim 23 is maintained in this Office action.
3. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In the first case, Zoepfl is relied upon to teach of an audio signal produced repeatedly at a desired interval, as claimed (Zoepfl, col. 1, lines 40-45., col. 3, lines 7+). Zoepfl suggests that these claimed features are advantageous and beneficial where individuals compete against time to complete a specified task, which may be divided into defined distance increments (Zoepfl, col. 2, lines 14-19). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to include an audio signal produced repeatedly at a desired interval in the system of Ruppert et al, because, as taught by Zoepfl, these features are advantageous and

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beneficial where individuals compete against time to complete a specified task, which may be divided into defined distance increments.

In the second case, Cannon et al discloses emitting a sound which changes in frequency to indicate relative proximity to a tag (col. 2, lines 50-53) but do not disclose expressly **"an audio signal produced repeatedly at a desired interval to pace a user as to the speed at which RFID tags should be interrogated"**. However, Cannon et al suggests that the manner in which sound is produced is just a matter of design to one of ordinary skill in the art, as long as it indicates the interrogator proximity to the tag (col. 2, lines 50-53). As such, Zoepfl is relied upon to teach of an audio signal produced repeatedly at a desired interval, as claimed (Zoepfl, col. 1, lines 40-45., col. 3, lines 7+). Zoepfl suggests that these claimed features are advantageous and beneficial where individuals compete against time to complete a specified task, which may be divided into defined distance increments (Zoepfl, col. 2, lines 14-19). At the time of applicant's invention, it would have been obvious to one of ordinary skill in the art to have used "an audio signal produced repeatedly at a desired interval" as claimed, in the system of Cannon et al, because, as taught by Zoepfl, these features are useful where individuals compete against time to complete a specified task, which may be divided into defined distance increments. Therefore, it would have been obvious to one of ordinary skill in the art to combine the systems of Cannon et al and Zoepfl, to arrive at the claimed invention recited in claim 23.

Terminal Disclaimer

4. The terminal disclaimer filed on 4/14/2006 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of USP 6,600,418 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Double Patenting

5. The filing of a terminal disclaimer overcomes the rejection Claims 1, 4, 6-9, 10-12, 15, 18, 22, 23, 24-25, 27 and 31, on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 1, 5, 7, 12, 16-18, 21 and 24-26 of U.S. Patent No. 6,600,418, and therefore withdrawn.

Claim Rejections - 35 USC § 112

6. The claims having been amended, the rejection of claims 1, 4-16, 18-19, 22-27 and 33, under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, is withdrawn.

Claim Rejections - 35 USC § 103

7. The rejection of claims 1, 4-16, 18, 19, 22, 27, and 31-33, under 35 U.S.C. 103(a) as being unpatentable over US 6,600,418 (Francis et al) in view of USP 4,827,395 (Anders et al) is withdrawn.

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,640,002 (hereinafter 'Ruppert et al') in view of USP 3,893,099 (hereinafter 'Zoepfl').

In claim 23, Ruppert et al teach of a RFID reader (314) comprising:

- (a) an RFID interrogation source (col. 22, lines 59-65., col. 23, lines 6-10., col. 44, lines 63-67),
- (b) a processor (320):
- (c) a display (figures 1 and 13; figures 16 and 19: 308, 328); and
- (e) a user interface (328, 308A, 3088)

Ruppert et al do not disclose **“an audio signal produced repeatedly at a desired interval to pace a user as to the speed at which RFID tags should be**

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interrogated". Zoepfl is relied upon to teach of an audio signal produced repeatedly at a desired interval, as claimed (Zoepfl, col. 1 , lines 40-45., col. 3, lines 7+). Zoepfl suggests that these claimed features are advantageous and beneficial where individuals compete against time to complete a specified task, which may be divided into defined distance increments (Zoepfl , col. 2, lines 14-19). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to include an audio signal produced repeatedly at a desired interval in the system of Ruppert et al, because, as taught by Zoepfl, these features are advantageous and beneficial where individuals compete against time to complete a specified task, which may be divided into defined distance increments.

11. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over USP 5,689,238 (hereinafter 'Cannon, Jr. et al') in view of USP 3,893,099 (hereinafter 'Zoepfl').

In claim 23, Cannon, Jr. et al teach of a RFID reader (Figures 1, 4, 6) comprising:

(a) an RFID interrogation source (20, 21);

(b) a processor (40);

(c) a display (22, 41); and

(e) a user interface for displaying a visual indication of tag proximity, such as signal strength, or an indication of distance to the tag (col. 2, lines 53+*, paragraph bridging cols. 3 and 4).

In claim 23, Cannon et al discloses emitting a sound which changes in frequency to indicate relative proximity to a tag (col. 2, lines 50-53) but do not disclose expressly **"an audio signal produced repeatedly at a desired interval to pace a user as to the speed at which RFID tags should be interrogated"**. However, Cannon et al suggests that the manner in which sound is produced is just a matter of design to one of ordinary skill in the art, as long as it indicates the interrogator proximity to the tag (col. 2, lines 50-53). As such, Zoepfl is relied upon to teach of an audio signal produced repeatedly at a desired interval, as claimed (Zoepfl, col. 1, lines 40-45., col. 3, lines 7+). Zoepfl suggests that these claimed features are advantageous and beneficial where individuals compete against time to complete a specified task, which may be divided into defined distance increments (Zoepfl, col. 2, lines 14-19). At the time of applicant's invention, it would have been obvious to one of ordinary skill in the art to have used "an audio signal produced repeatedly at a desired interval" as claimed, in the system of Cannon et al, because, as taught by Zoepfl, these features are useful where individuals compete against time to complete a specified task, which may be divided into defined distance increments. Therefore, it would have been obvious to one of ordinary skill in the art to combine the systems of Cannon et al and Zoepfl, to arrive at the claimed invention recited in claim 23.

Allowable Subject Matter

12. Claims 1, 4-16, 18-19, 22, 27, 31-33, 39-40 are allowed.

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13. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

14. The following is a statement of reasons for the indication of allowable subject matter:

With regards to claims 1, 10, 15, 18, 22, 24, and 27, the prior art made of record do not disclose a RFID reader comprising a processor that determines a location of an item of interest within an interrogation area based on the interrogated plurality of items and a user interface in which a representation of the interrogation area is shown on the display as a first graphical component of the user interface, and a representation of the item of interest is shown on the display as a second graphical component of the user interface relative to the first graphical component to indicate the location of the item of interest within the interrogation area.

With regards to claim 31, the prior art made of record do not disclose a RFID reader comprising a processor that determines a number of intermediate items located between an interrogated item and an item or location of interest, and a user interface that displays an indication in a measurable unit of how far away the item or location of interest is from the interrogated item based on the determined number of intermediate items.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USP 6,261,247 (Ishikawa et al) and USP 6,614,721 (Bokhour) are cited in that these patents teach of **"an audio signal produced repeatedly at a desired interval to pace a user as to the speed at which RFID tags should be interrogated"** {Ishikawa et al, col. 11, lines 24-33+; Bokhour, col. 7, lines 45-65+}.

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Office Contact Information

17. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to William Bangachon whose telephone number is (571)-

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272-3065. The Examiner can normally be reached on Monday – Thursday, 8:30 AM – 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wendy Garber can be reached on **(571)-272-7308**. The fax phone numbers for the organization where this application or proceeding is assigned is **571-273-8300** for regular and After Final formal communications. The Examiner's fax number is **(571)-273-3065** for informal communications.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.



William L. Bangachon
Examiner
Art Unit 2635

June 5, 2006



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